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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,939	10/24/2003	James A. Lamb	200312021-1	2113
<div>22879      7590      10/18/2007</div> <div>HEWLETT PACKARD COMPANY</div> <div>P O BOX 272400, 3404 E. HARMONY ROAD</div> <div>INTELLECTUAL PROPERTY ADMINISTRATION</div> <div>FORT COLLINS, CO 80527-2400</div>				
			EXAMINER	
			ANYA, CHARLES E	
			ART UNIT	PAPER NUMBER
			2194	
			MAIL DATE	DELIVERY MODE
			10/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/692,939

Applicant(s)

LAMB ET AL.

Examiner

Charles E. Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

**DETAILED ACTION**

1. Claims 1-32 are pending in this application.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3,5-9, and 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,484,309 B2 to Nowlin, Jr. et al. in view of U.S. Pat. No. 6,651,123 B1 to Hutchison et al.**

3. As to claim 1, Nowlin, Jr. teaches a computing device, comprising: an application layer (Windows 95/NT Application 20 Col. 2 Ln. 49 – 67); an operating system layer having a first type of operating system (Windows CE operating system/kernel 24 figure 2) and associated application program interfaces (APIs); and an interface module coupled between the application layer and the operating system layer (figure 2), wherein the interface module receives program instructions from a program in the application layer written for a second type of operating system (“...Win9X operating system...” Col. 2 Ln. 33 – 39, “...standard calling convention...” Col. 3 Ln. 4 – 18) and processes the instructions by directing the instructions through interpretation,

translation, and conversion to APIs that correctly execute the instructions (Translation Layer 22 Col. 2 Ln. 49 – 67, (“...ReQueryValueEx...” Col. 3 Ln. 35 – 40, “...translations...conversation...” Col. 3 Ln. 19 – 56).

Nowlin Jr. is silent with reference to the interface module receives program instructions from a program in the application layer written for a second type of operating system and processes the instruction through emulation.

Hutchison teaches the interface module receives program instructions from a program in the application layer written for a second type of operating system and processes the instruction through emulation (“...file lock emulator...” Col. 1 Ln. 51 – 67; figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nowlin, Jr. with the teaching of Hutchison because the teaching of Hutchison would improve the system of Nowlin, Jr. by using request emulator that are integrated within an application program ported to various different operating systems (Hutchison Col. 1 Ln. 51 – 54).

4. As to claim 2, Hutchison teaches the computing device of claim 1, wherein the interface module includes an operating system emulation module for emulating a number of operating system functions (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

5. As to claim 3, Hutchison teaches the computing device of claim 1, wherein the interface module emulates operating system functions and network server functions ("...file lock emulator..." Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

6. As to claim 5, Hutchison teaches the computing device of claim 1, wherein the interface module emulates intelligent network server functions ("...file lock emulator..." Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

7. As to claim 6, Hutchison teaches the computing device of claim 1, wherein the interface module has portions for emulating the operating system functions and the network server functions in discrete modules located within the interface module ("...file lock emulator..." Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

8. As to claim 7, Nowlin, Jr. teaches the computing device of claim 1, wherein the interface module processes a program instruction by interpreting whether the instruction has to be processed further ("...ReQueryValueEx..." Col. 3 Ln. 35 – 40).

9. As to claim 8, Nowlin, Jr. teaches the computing device of claim 7, wherein the interface module converts a result received from the operating system layer such that

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the converted result is in a format that the application program can use to execute the instruction (Steps 44/50 Col. 3 Ln. 41 – 49).

10. As to claim 9, Nowlin, Jr teaches the computing device of claim 7, wherein the interface module translates the instruction received such that the operating system layer can execute the instruction (figure 3 Col. 3 Ln. 35 – 56, "...translate..." Col. 1 – 8).

11. As to claim 17, Nowlin, Jr. teaches a method of executing an application comprising: providing an application configured for an operating system; communicating instructions from the application to an interface module (figure 3 "...application calls..." Col. 3 Ln. 35 – 56) through interpretation, translation, and conversion (Translation Layer 22 Col. 2 Ln. 49 – 67, "...ReQueryValueEx..." Col. 3 Ln. 35 – 40, "...translations...conversation..." Col. 3 Ln. 19 – 56); and processing the instructions with the interface module to function with a different operating system (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

Nowlin, Jr. is silent with reference to communicating instructions from the application to an interface module through emulation.

Hutchison teaches communicating instructions from the application to an interface module through emulation ("...file lock emulator..." Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nowlin, Jr. with the teaching of Hutchison

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because the teaching of Hutchison would improve the system of Nowlin, Jr. by using request emulator that are integrated within an application program ported to various different operating systems (Hutchison Col. 1 Ln. 51 – 54).

12. As to claim 18, Nowlin, Jr. teaches the method of claim 17, wherein processing the instructions from the application with the interface module includes using a list of instructions to be processed (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

13. As to claims 19 and 21, Nowlin, Jr. teaches platform independence between multiple operating systems, however Nowlin, Jr., is silent with reference to the application being configured for a Linux based operating system/Unix operating system applications.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the platform independence of Nowlin, Jr. to include configuration/interoperability between Windows CE operating system and Linux operating system/Unix operating system applications to allow for increased compatibility.

14. As to claim 20, Nowlin, Jr. teaches the method of claim 17, wherein the application is configured for a Windows based operating system (“...Win9X...” Col. 2 Ln. 33 – 67).

15. As to claim 22, Nowlin, Jr. teaches the method of claim 17, wherein the method further includes identifying instructions to be translated by the interface module (“...translations...” Col. 3 Ln. 20 – 25, Ln. 35 – 56).

16. As to claim 23, Nowlin, Jr. teaches a method of executing an application (“...Win9X...” figure 2) configured for a platform having first type of operating system (“Windows operating system...” Col. 2 Ln. 33 – 67) on a platform having a second type of operating system (Windows CE operating system/kernel 24 figure 2) comprising: communicating instructions from the application to an interface module, the application configured for a first type of operating system (figure 3 “...application calls...” Col. 3 Ln. 35 – 56); interpreting the instructions from the application with the interface module through interpretation, translation, and conversion (“...ReQueryValueEx...” Col. 3 Ln. 35 – 40, “...translations...conversation...” Col. 3 Ln. 19 – 56, “...translations...” Col. 3 Ln. 19 – 25, “...converts...” Col. 3 Ln. 35 – 40); and communicating the instructions from the interface module to an operating system that is the second type of operating system (Step 44 Col. 3 Ln. 41 – 44).

Nowlin Jr. is silent with reference to interpreting the instructions from the application with the interface module through emulation

Hutchison teaches interpreting the instructions from the application with the interface module through emulation (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nowlin, Jr. with the teaching of Hutchison because the teaching of Hutchison would improve the system of Nowlin, Jr. by using request emulator that are integrated within an application program ported to various different operating systems (Hutchison Col. 1 Ln. 51 – 54).

17. As to claim 24, Hutchison teaches the method of claim 23, wherein communicating instructions from the application to an interface module includes communicating instructions to an operating system emulation module within the interface module (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

18. As to claim 25, Hutchison teaches the method of claim 24, wherein interpreting the instructions includes directing an instruction from the operating system emulation module to an application program interface (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

19. As to claim 26, Hutchison teaches the method of claim 23, wherein communicating instructions from the application to an interface module includes communicating instructions to a network server emulation module within the interface module (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

20. As to claim 27, Nowlin, Jr. teaches the method of claim 23, wherein interpreting the instructions includes translating an instruction configured for the first type of operating system to an instruction configured for the second type of operating system (Col. 1 Ln. 45 – 52, figure 3 Col. 3 Ln. 35 – 56).

21. As to claim 28, Nowlin, Jr. teaches the method of claim 23, wherein interpreting the instructions includes converting a result configured for the second type of operating system to a result configured for the first type of operating system (Step 48 Col. 3 Ln. 44 – 49).

**22. Claims 4,10-16 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,484,309 B2 to Nowlin, Jr. et al. in view of U.S. Pat. No. 6,651,123 B1 to Hutchison et al. and further in view of U.S. Statutory Invention Registration No. H1,921 to Fletcher et al.**

23. As to claim 4, Hutchison and Nowlin, Jr. are silent with reference to the computing device of claim 1, wherein the interface module emulates home location register functions.

Fletcher teaches the computing device of claim 1, wherein the interface module emulates home location register functions (“...interface...” Col. 11 Ln. 27 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hutchison and Nowlin, Jr. with the teaching of Fletcher because the teaching of Fletcher would improve the system of Hutchison and Nowlin, Jr. by allowing for a central database that contains details of service subscribers that are authorized to use phone service core network.

24. As to claim 10, Nowlin, Jr. teaches a system architecture, comprising: an operating system layer having a first type of operating system; and an interface module (Translation Layer 22) to interface the application (Windows 95/NT Application 20) designed for a second type of operating system (Win9X operating system) with the first type of operating system (Windows CE operating system/Kernel 24 (figures 2/3) through interpretation, translation, and conversion (Translation Layer 22 Col. 2 Ln. 49 – 67, "...ReQueryValueEx..." Col. 3 Ln. 35 – 40, "...translations... conversation..." Col. 3 Ln. 19 – 56) and a connection for connecting the computing device to a publicly switched telephone network (PSTN) ("...wireless connection..." Col. 2 Ln. 21 – 26).

Nowlin, Jr. is silent with reference to a computing device including an application layer having a home location register application thereon and an interface module to interface the application designed for a second type of operating system with the first type of operating system through emulation.

Hutchison teaches an interface module to interface the application designed for a second type of operating system with the first type of operating system through

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emulation (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nowlin, Jr. with the teaching of Hutchison because the teaching of Hutchison would improve the system of Nowlin, Jr. by using request emulator that are integrated within an application program ported to various different operating systems (Hutchison Col. 1 Ln. 51 – 54).

Fletcher teaches a computing device including an application layer having a home location register application thereon (Col. 8 Ln. 37 – 38, Software Entities 312 Col. 11 Ln. 27 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hutchison and Nowlin, Jr. with the teaching of Fletcher because the teaching of Fletcher would improve the system of Hutchison and Nowlin, Jr. by allowing for a central database that contains details of service subscribers that are authorized to use phone service core network.

25. As to claim 11, Nowlin, Jr. teaches the system architecture of claim 10, wherein the interface module has a number of modules to translate instructions between the operating system layer and the application layer (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

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26. As to claim 12, Nowlin, Jr. teaches the system architecture of claim 10, wherein the system architecture further includes an abstraction module having translation and conversion information therein (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

27. As to claim 13, Nowlin, Jr. teaches the system architecture of claim 12, wherein an operating system emulation module is in communication with the abstraction module (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

28. As to claim 14, Nowlin, Jr. teaches the system architecture of claim 13, wherein the operating system emulation module has translation and interpretation information therein (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

29. As to claim 15, Hutchison and Nowlin, Jr as modified by Fletcher teaches the system architecture of claim 10, wherein the system architecture further includes an operating system emulation module to direct an instruction from the home location register application to an application program interface (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 19 – 56).

30. As to claim 16, Nowlin, Jr teaches the system architecture of claim 10, wherein the system architecture further includes a number of component modules that can

interface between an application designed for a second type of operating system and the operating system layer having a first type of operating system.

31. As to claim 29, Nowlin, Jr. teaches a computer readable medium having a set of computer executable instructions thereon for causing a device to perform a method, comprising: communicating instructions from a application to an interface module (Step 40 Col. 3 Ln. 35 – 56), the application configured for a first type of operating system (Win9X operating system); processing the instructions from the telecommunication application with the interface module through interpretation, translation, and conversion (Translation Layer 22 Col. 2 Ln. 49 – 67, “...ReQueryValueEx...” Col. 3 Ln. 35 – 40, “...translations...conversation...” Col. 3 Ln. 19 – 56); and communicating the instructions from the interface module to an operating system that is a second type of operating system (Step 44 Col. 3 Ln. 41 – 45)

Nowlin, Jr. is silent with reference to communicating instructions from a telecommunications application to an interface module, the telecommunication application configured for a first type of operating system and processing the instructions from the application with the interface module through emulation.

Hutchison teaches processing the instructions from the application with the interface module through emulation (“...file lock emulator...” Col. 1 Ln. 51 – 67, figure 2 File Lock emulator 203 Col. 10 Ln. 17 – 38, Ln. 47 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nowlin, Jr. with the teaching of Hutchison

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because the teaching of Hutchison would improve the system of Nowlin, Jr. by using request emulator that are integrated within an application program ported to various different operating systems (Hutchison Col. 1 Ln. 51 – 54).

Fletcher teaches communicating instructions from a telecommunications application to an interface module, the telecommunication application configured for a first type of operating system (Col. 8 Ln. 37 – 38, Software Entities 312 Col. 11 Ln. 27 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hutchison and Nowlin, Jr. with the teaching of Fletcher because the teaching of Fletcher would improve the system of Hutchison and Nowlin, Jr. by allowing for a central database that contains details of service subscribers that are authorized to use phone service core network.

32. As to claim 30, Nowlin, Jr. teaches the computer readable medium of claim 29, wherein communicating instructions from an application to an interface module includes communicating to an abstraction module within the interface module (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 35 – 56).

33. As to claim 31, Nowlin, Jr. teaches the computer readable medium of claim 29, wherein communicating instructions from an application to an interface module includes communicating instructions to a component module within the interface module (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 35 – 56).

34. As to claim 32, Nowlin, Jr. teaches the computer readable medium of claim 29, wherein the method further includes identifying instructions to be converted by the interface module (Translation Layer 22 Col. 2 Ln. 49 – 51, Col. 3 Ln. 35 – 56).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is 571-272-3757. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SUPERVISORY PATENT EXAMINER